

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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Title: **DEVICES, SOFTWARES AND METHODS FOR RESCHEDULING  
MULTI-PARTY SESSIONS UPON PREMATURE TERMINATION OF  
SESSION**  
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MAIL STOP AMENDMENT  
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***AMENDMENT***

This paper is responsive to the non-final Office Action (Paper No. 20060210) that was mailed on 23 February 2006.

**Claim Amendments** begin on page 2 of this paper.

**Remarks/Arguments** begin on page 8 of this paper.

*In the Claims*

1. (Previously presented) A device comprising:
  - a memory; and
  - a processor coupled with the memory, the processor adapted to:
    - receive a reservation request from a first peripheral device for a wireless communication session between the first peripheral device and the processor;
    - receive another reservation request from a second peripheral device for another wireless communication session between the second peripheral device and the processor;
    - generate a schedule in response to the reservation request and the another reservation request, the schedule coordinating the wireless communication session during a first time window having a designated start time and a designated end time, the schedule coordinating the another wireless communication session to begin after the designated end time;
    - wirelessly transmit a multi-poll scheduling frame to the first peripheral device and the second peripheral device, the schedule encoded in the multi-poll scheduling frame;
    - wirelessly exchange data with the first peripheral device during the first time window;
    - wirelessly transmit a rescheduling frame in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs, the rescheduling frame dynamically enabling the second peripheral device to begin the another wireless communication session before the designated end time; and
    - wirelessly exchange data with the second peripheral device before the first time window ends pursuant to the rescheduling frame.
2. (Original) The device of claim 1, wherein the rescheduling frame is a null frame.
3. (Original) The device of claim 1,
  - wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and the processor is further adapted to:
    - encode data about the periodicity in the multi-poll scheduling frame.

4. (Original) The device of claim 3, wherein the rescheduling frame is a null frame.

5. (Currently amended) A device comprising:

a memory; and

a processor coupled with the memory, the processor adapted to:

wirelessly transmit a reservation request to ~~another~~ a first device for wireless communications with the ~~another device;~~ first device,

wirelessly receive a multi-poll scheduling ~~frame;~~ frame,

decode from the multi-poll scheduling frame a schedule for wireless communications ~~with the another device during a first time window having a defined start time and end time and for subsequent wireless communications during a second time window having a defined start time and end time that does not overlap with the first time window during which to exchange data;~~ communications, the schedule specifying a start time and an end time for a first time window, the schedule specifying a start time and an end time for a second time window, the second time window after and not overlapping the first time window, the first time window for data exchange between the first device and a second device, the second time window for data exchange between the first device and the device,

during the first time window, wirelessly receive a rescheduling ~~frame enabling wireless communications for the second time window to begin before the end time of the first time window;~~ frame,

in response to the rescheduling frame, dynamically reschedule wireless communications during reset the start time of the second time window to begin before the end time of the first time window ~~in response to the rescheduling frame;~~ window, and

before the end time of the first time window, wirelessly exchange data during the rescheduled second time window before the first time window ends with the first device.

6. (Original) The device of claim 5, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

7. (Original) The device of claim 5, wherein the rescheduling frame is a null frame.

8. (Original) The device of claim 5, wherein the processor is further adapted to: decode from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

9. (Original) The device of claim 8, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

10. (Original) The device of claim 8, wherein the rescheduling frame is a null frame.

11. (Previously presented) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:  
generating a schedule for wirelessly exchanging data during a wireless communication session with a first peripheral device during a first time window, and for wirelessly exchanging data with a second peripheral device after the first time window, the schedule generated in response to a request for the wireless communication session from the first peripheral device and in response to another request for another wireless communication session from the second peripheral device;

wirelessly transmitting at least one multi-poll scheduling frame that encodes the schedule, the multi-poll scheduling frame containing instructions for the first peripheral device and the second peripheral device;

wirelessly exchanging data with the first peripheral device after the scheduled first time window starts;

completing wirelessly exchanging data with the first peripheral device before the first time window ends;

wirelessly transmitting a rescheduling frame to the second peripheral device that dynamically during the same wireless communication session enables the second peripheral device to start wirelessly exchanging data before the end of the first time window; and

wirelessly exchanging data with the second peripheral device before the first time window ends.

12. (Original) The article of claim 11, wherein the rescheduling frame is a null frame.

13. (Original) The article of claim 11,  
wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity,  
and the instructions further result in:  
encoding data about the periodicity in the multi-poll scheduling frame.

14. (Original) The article of claim 13, wherein the rescheduling frame is a null frame.

15. (Currently amended) An article ~~comprising a~~ comprising a storage medium, said storage medium having stored thereon instructions, that, when executed by a first wireless device, result in:

wirelessly transmitting a reservation request for a wireless communication session with a second wireless device;

wirelessly receiving a multi-poll scheduling frame, the multi-poll scheduling frame including instructions for the first wireless device and a third wireless device;

decoding from the received multi-poll scheduling frame ~~a schedule for the wireless communication session that identifies a first time window defining a wireless communication start time and a wireless communication stop time and a subsequent second time window defining a wireless communication start time and a wireless communication stop time during which to wirelessly exchange data, the wireless communication~~ schedule, the schedule identifying a start time and a stop time of a first time window for wireless communication between the second wireless device and the third wireless device, the schedule identifying a start time and a stop time of a second time window for wireless communication between the second wireless device and the first wireless device, the start time for the second time window being scheduled after the wireless communication stop time for the first time window;

during the first time window, in response to receiving a rescheduling frame during the first time window, the rescheduling frame directing wireless communication during the start time for the second time window to begin before the wireless communication stop time for the first time window; window, dynamically rescheduling the start time for the second time window to

~~occur prior to the stop time for the first time window; and during the wireless communication session in response to the rescheduling frame; and~~

~~wirelessly exchanging data during the rescheduled second time window before the wireless communication with the second wireless device before the stop time for the first time window.~~

16. (Original) The article of claim 15, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

17. (Original) The article of claim 15, wherein the rescheduling frame is a null frame.

18. (Original) The article of claim 15, wherein the instructions further result in: decoding from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

19. (Original) The article of claim 18, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

20. (Original) The article of claim 18, wherein the rescheduling frame is a null frame.

21. (Currently amended) A method comprising:

receiving reservation requests from a first peripheral device and a second peripheral device;

generating a schedule that specifies a start time for a first time window, a stop time for the first time window, and a start time for a second time window, the first time window for wirelessly exchanging data with receiving a first data transmission from the first peripheral device during a first time window and for wirelessly exchanging data with the second peripheral device after the first time window ends, the schedule defining a specific wireless communication start time and a wireless communication stop time for wirelessly communicating data during the first time window device, the second time window for wirelessly receiving a second data

transmission from the second peripheral device, the start time of the second time window occurring after the stop time of the first time window;

wirelessly transmitting a multi-poll scheduling frame that encodes the schedule, the multi-poll scheduling frame containing instructions for the first peripheral device and for the second peripheral device;

wirelessly exchanging data with the first peripheral device during the scheduled first time window;

completing wirelessly exchanging data with the first peripheral device before the wireless communication stop time for the first time window;

wirelessly receiving the first data transmission during the first time window, the first data transmission completing before the stop time of the first time window;

wirelessly transmitting a rescheduling frame that directs the second peripheral device to begin wireless communication the second data transmission before the ~~wireless communication~~ stop time for the first time window; and

wirelessly ~~exchanging data with~~ receiving a portion of the second data transmission during the second peripheral device before the end of the first time window in response to the reschedule frame.

22. (Original) The method of claim 21, wherein the rescheduling frame is a null frame.

23. (Currently amended) The method of claim 21, wherein the ~~generated~~ schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and further comprising:  
encoding data about the periodicity in the multi-poll scheduling frame.

24. (Original) The method of claim 23, wherein the rescheduling frame is a null frame.

25. (Currently amended) A method comprising:  
wirelessly transmitting a reservation request for a wireless communication session;

wirelessly receiving a multi-poll scheduling frame associated with the wireless communication session;

decoding from the received multi-poll scheduling frame a schedule for a first time window and for a ~~subsequent~~ second time window during which to wirelessly exchange data, the first and second time windows the second time window occurring after the first time window and not overlapping the first time window, the schedule specifying non-overlapping wireless communication periods that each have an associated beginning wireless communication start time and an ending communication stop time a start time and an end time for the first time window and the second time window;

during the first time window, wirelessly receiving a rescheduling frame ~~that dynamically redirects the second time window to start before the end of the first time window;~~

in response to the rescheduling frame, rescheduling the start time of the second time window in response to the rescheduling frame to occur before the end time of the first time window; and

wirelessly exchanging data ~~during the rescheduled second time window~~ before the first time window ends.

26. (Original) The method of claim 25, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

27. (Original) The method of claim 25, wherein the rescheduling frame is a null frame.

28. (Original) The method of claim 25, further comprising:

decoding from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

29. (Original) The method of claim 28, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

30. (Original) The method of claim 28, wherein the rescheduling frame is a null frame.



### ***Remarks***

Claims 5, 15, 21, 23, and 25 are amended. No new subject matter is added. Claims 1-30 remain pending in the application. Reconsideration and allowance of the pending claims is requested in light of the following remarks.

### ***In the Claims***

The amendment of claims 5, 15, 21, 23, and 25 is fully supported by, e.g., the subject matter that was originally presented in these claims. The amendments are not intended for the purpose of overcoming the prior art of record but rather to increase the clarity of the claim language.

### ***U.S. Patent No. 6,850,489 to Omi et al. ("Omi")***

Omi contemplates a communication system CS that includes a plurality of communication stations 1 (e.g., 1a, 1b, 1c), each of which are communicably connected through a wireless transmission path 2 (FIG. 1; column 5, lines 53-59). Any communication station 1 that transmits data is referred to as a transmitting station 1T, and any other communication station 1 that receives the data is referred to as a receiving station 1R (column 5, line 65 to column 6, line 3). The receiving stations 1R reserves bandwidths used in data communication for the transmitting stations 1T in advance (column 6, lines 3-5). The procedure for bandwidth reservation is referred to as a reservation phase, and the procedure for data communication is referred to as a data communication phase (column 6, lines 6-8). As shown in FIGs. 2, 3, and 13-15, the reservation phase precedes the data communication phase.

In the reservation phase, the receiving station 1R assembles a request inquiry packet 101 and sends the request inquiry packet to the wireless transmission path 2 (FIG. 1; column 6, lines 16-17 and lines 45-46). Among the communication stations, any station 1T having data to be transmitted to the receiving station 1R receives the request inquiry packet through the transmission path 2 (FIG. 1; column 6, lines 49-51).

In response to the request inquiry packet 101, the transmitting station 1T assembles a reservation request packet 102 for requesting data communication with the receiving station 1R

and transmits the reservation request packet 102 through the wireless transmission path 2 (FIGs. 1 and 2; column 6, lines 53-57; column 7, lines 20-24).

The receiving station 1R repeats the assembly and transmission of the request inquiry packet 101 for M times ( $M > 0$ ) in sequence Seq1<sub>1</sub> to 1<sub>M</sub>, in order to collect requests for data communication from other transmitting stations 1T (FIG. 2; column 7, lines 25-30). After such collection, the receiving station 1R reserves, for each of the transmitting stations 1T, a bandwidth necessary for data communication so as to determine the total number N ( $N > 0$ ) of communication reservation packets 103 that are to be transmitted during the data communication phase (column 7, lines 34-41).

**For every transmitting station 1T**, a valid period VP is generated, where the valid period VP is the value denoting how long each bandwidth reserved for the transmitting stations 1T is valid (column 7, lines 49-55; emphasis added). Initial values of VP are generated **for each of the transmitting stations 1T** during the reservation phase (column 7, lines 58; emphasis added). For each of the transmitting stations 1T, a transfer rate R, a source identifier SID, and the valid period VP is stored as a set (column 11, lines 33-42).

The data communication phase follows the reservation phase (column 7, lines 59-60). During the data communication phase, the receiving station 1R assembles **one** communication reservation packet 103 to inform **each** transmitting station 1T of the bandwidth that is reserved therefore, and sends out the communication reservation packet 103 to be received by the targeted transmitting station 1T for disassembly (column 7, lines 60-62; column 8, lines 31-36; emphasis added). Each of the communication reservation packets 103 includes the valid period VP (FIG. 4C; column 7, lines 64-67). The valid period VP is retrieved from the storage device 13R and is associated with the identifier ID of the selected transmitting station 1T (column 13, lines 4-7, lines 19-30).

After the targeted transmitting station 1T receives the communication reservation request 103, it assembles a data packet 104 in order to transmit one of several data blocks DB to the receiving station 1R (column 8, lines 37-45).

The receiving station 1R repeats the transmission of the communication reservation packet 103 for N times (sequence Seq3<sub>1</sub> to 3<sub>N</sub>) so as to receive the data packets 104 from the transmitting stations 1T (FIG. 2; column 9, lines 4-7). Each time that a communication reservation packet 103 is sent to a targeted transmitting station 1T, the valid period VP for the

targeted transmitting station is lengthened or shortened depending on whether a data packet 104 is received from the targeted transmitting station 1T in response to the communication reservation packet 103 (column 9, lines 7-30). As shown in FIG. 2, the communication station 1b has a valid period VPb, and the communication station 1c has a valid period VPc, which can either be lengthened or shortened.

Several principles of Omi's invention are evident from the teachings that were identified above. First, Omi teaches that every data packet 104 sent to the receiving station 1R by a transmitting station 1T is sent in response to a communication reservation request 103 from the receiving station. Second, every communication reservation request 103 contains a valid period VP which is associated with only one of the transmitting stations 1T. Third, the valid period VP is a value denoting *how long* each bandwidth reserved for the transmitting stations 1T is valid, e.g., 10 seconds, 1 second, 100 milliseconds.

***U.S. Patent No. 6,363,062 to Aaronson ("Aaronson")***

Aaronson contemplates a wireless mesh topology network 11 having mutually interconnected, line-of-sight nodes 12-19 (FIG. 1; column 4, lines 22-24). The basic principle of Aaronson's invention is the use of synchronous schedule information as a control channel between the nodes to assign asynchronous variable length packet data slots in between the schedule information time slots (column 3, lines 39-44).

Time is broken up into frames of known length (column 4, line 31). In each frame, every node has scheduled slots with which to exchange control information with each of its neighbors (column 4, lines 32-34). These scheduled slots for exchanging control information are known as the control channel (column 4, lines 33-34). Data transmissions are interwoven throughout the frame, avoiding the control channel (column 4, lines 55-57). Any time a node is not participating in a control channel transmission or reception, it is free to schedule the transmission or reception of data packets (column 4, lines 34-36).

As part of the control channel, requests are made to transmit bits (column 4, lines 36-38). As part of the request, information about unscheduled periods, i.e., available time or gaps, in the requesting node's data channel is transmitted (column 4, lines 38-40). The node receiving the requests to transmit (RTS) grants or denies transmissions (column 4, lines 40-41). Part of the

grant includes a schedule, selected from the requester's schedule, for when to transmit the data (column 4, lines 41-43).

The basic communications that need to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2; column 5, lines 2-13). Every node must have at least one session with each of its neighbors every frame and none of the sessions can be overlapping (column 5, lines 60-62). The sessions occur on a fixed schedule, which is determined for the entire network by a global scheduling algorithm (column 5, lines 62-64).

Every node knows, in addition to its own control channel schedule, its neighbor's control channel schedule (column 6, lines 8-9). During a data transmission to a neighbor, the node must break transmissions in order to maintain its own or its neighbor's control channel sessions (column 6, lines 14-18).

Since none of the sessions can be overlapping, it seems apparent that each one of Aaronson's nodes must sequentially schedule data communications with each one of its neighbors. That is, a node must schedule data communications with a first neighbor before it can schedule data communications with a second neighbor, and the schedule of the second neighbor is ignored when the data communication schedule with the first neighbor is being arranged.

### ***Claim Rejections – 35 U.S.C. § 103***

Claims 1, 5, 6, 8, 9, 11, 15, 16, 18, 19, 21, 25, 26, 28 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Omi in view of Aaronson. The applicant disagrees.

The Office Action does not specifically relate the teachings of Omi or Aaronson to the features of claim 1. However, it may be assumed, based upon the comments directed at claim 5, that Aaronson is alleged to teach the recited claim 1 feature of generating a schedule in response to the reservation request and the another reservation request.

To the contrary, Aaronson fails to teach that a schedule is generated both in response to the reservation request and in response to the another reservation request. Rather, as was

explained above, each one of Aaronson's nodes must have a control session with each one of the other nodes during one frame, and priority of scheduling would therefore be given to a node having a control session at an earlier point in the frame than another node having a control session at a later point in the frame.

For this reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Furthermore, claim 1 additionally recites that the processor is adapted to wirelessly transmit a multi-poll scheduling frame to the first peripheral device and the second peripheral device. Aaronson is alleged to teach this feature.

As was explained above, Aaronson teaches that data communication between nodes occurs in between the control sessions between one node and another node. Therefore, the information about unscheduled periods that one node transmits to a first neighboring node during a first control session will be different from the information about unscheduled periods that the same node transmits to a second neighboring node during a second control session. Thus, contrary to claim 1, Aaronson does not teach or suggest that the same multi-poll scheduling frame is sent to the first peripheral device and the second peripheral device.

For this additional reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Furthermore, claim 1 additionally recites that the processor is adapted to wirelessly transmit a multi-poll scheduling frame to the first peripheral device and the second peripheral device, where the schedule is encoded in the multi-poll scheduling frame. Aaronson is alleged to teach this feature.

Even if the information about unscheduled periods that is sent to a first one of Aaronson's nodes during a first control session is considered "a multi-poll scheduling frame" sent to the first peripheral device, and even if the information about unscheduled periods that is sent to a second one of Aaronson's nodes during a second control session is considered "a multi-poll scheduling frame" sent to the second peripheral device, claim 1 still requires that the schedule be encoded in the multi-poll scheduling frame. "The schedule" as recited in claim 1 refers to one particular schedule, and as explained above the information about unscheduled

periods for any one of Aaronson's nodes may be different from control session to control session.

For this additional reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Regarding claim 5, it was recognized that Omi fails to teach the feature of wirelessly receiving a multi-poll scheduling frame and decoding a schedule from the multi-poll scheduling frame, where the schedule specifies a start time and an end time for a first time window, the schedule specifying a start time and an end time for a second time window, the second time window after and not overlapping the first time window, the first time window for data exchange between the first device and a second device, the second time window for data exchange between the first device and the processor. Aaronson is instead alleged to teach this feature.

However, Aaronson states that the basic communications that need to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2; column 5, lines 2-13).

Thus, since two of Aaronson's nodes exchange information regarding their remaining unscheduled time, and not the time that is already scheduled, contrary to claim 5 Aaronson's schedule does not specify a start time and an end time for a first time window for data exchange between the first device and a second device as well as specify a start time and an end time for a second time window for data exchange between the first device and the device.

For this reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 5 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 6, 8, and 9 depend from claim 5 and inherently contain the features of claim 5. Consequently, claims 6, 8, and 9 are allowable over the combination of Omi and Aaronson at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

The Office Action does not specifically relate the teachings of Omi or Aaronson to the features of claim 11. However, it may be assumed, based upon the comments directed at claim 5, that Aaronson is alleged to teach the recited claim 11 feature of generating a schedule for wirelessly exchanging data in response to a request for the wireless communication session from the first peripheral device and in response to another request for another wireless communication session from the second peripheral device.

To the contrary, Aaronson fails to teach that a schedule is generated both in response to a request for the wireless communication session from the first peripheral device and in response to another request for another wireless communication session from the second peripheral device. Rather, as was explained above, each one of Aaronson's nodes must have a control session with each one of the other nodes during one frame, and priority of scheduling would therefore be given to a node having a control session at an earlier point in the frame than another node having a control session at a later point in the frame.

For this reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 11 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Furthermore, claim 11 additionally recites wirelessly transmitting at least one multi-poll scheduling frame containing instructions for the first peripheral device and the second peripheral device. Aaronson is alleged to teach this feature.

Aaronson states that the basic communications that needs to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2; column 5, lines 2-13). Every node must have at least one session with each of its neighbors every frame and none of the sessions can be overlapping (column 5, lines 60-62).

Thus, contrary to claim 11, the RTS messages and CTS messages that a first one of Aaronson's nodes sends to a second one of the nodes does not contain instructions for a third one of the nodes.

For this additional reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 11 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Furthermore, claim 11 recites generating a schedule for wirelessly exchanging data during a wireless communication session with a first peripheral device during a first time window, and for wirelessly exchanging data with a second peripheral device after the first time window. Aaronson is alleged to teach this feature.

Aaronson states that the basic communications that needs to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2; column 5, lines 2-13). Every node must have at least one session with each of its neighbors every frame and none of the sessions can be overlapping (column 5, lines 60-62).

Thus, contrary to claim 11, it is apparent that one of Aaronson's CTS messages does not read upon generating a schedule for wirelessly exchanging data during a wireless communication session with a first peripheral device during a first time window, and for wirelessly exchanging data with a second peripheral device after the first time window.

For this additional reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 11 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Regarding claim 15, Aaronson is alleged to teach the recited claim 15 feature of wirelessly receiving a multi-poll scheduling frame, the multi-poll scheduling frame including instructions for the first wireless device and a third wireless device.

Aaronson states that the basic communications that needs to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2;



column 5, lines 2-13). Every node must have at least one session with each of its neighbors every frame and none of the sessions can be overlapping (column 5, lines 60-62).

Thus, contrary to claim 15, the RTS messages and CTS messages sent between two nodes as taught by Aaronson fail to teach the recited feature of wirelessly receiving a multi-poll scheduling frame, the multi-poll scheduling frame including instructions for the first wireless device and a third wireless device.

For this reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 15 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Furthermore, claim 15 recites that the schedule identifies a start time and a stop time of a first time window for wireless communication between the second wireless device and the third wireless device.

Aaronson states that the basic communications that needs to occur with each neighbor as part of the control channel is an exchange known as a session, where the session consists of an RTS message to the neighbor with information about free time in the node's schedule, a clear to send (CTS) message from the neighbor granting transmission at some mutually agreeable time, an RTS message from the neighbor with information about the neighbor's unscheduled time, and a CTS message to the neighbor granting transmission at some mutually agreeable time (FIG. 2; column 5, lines 2-13). Every node must have at least one session with each of its neighbors every frame and none of the sessions can be overlapping (column 5, lines 60-62).

Contrary to claim 15, Aaronson fails to teach or suggest that the CTS messages between two nodes identifies a start time and a stop time of a first time window for wireless communication between one of the two nodes and a third node other than the two nodes.

For this additional reason, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 15 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 16, 18, and 19 depend from claim 15 and inherently contain the features of claim 15. Therefore, claims 16, 18, and 19 are allowable over the combination of Omi and Aaronson at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Claim 21 has features that are similar to claim 11. Thus, for the same reasons presented above for claim 11, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 21 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claim 25 has features that are similar to claim 15. Thus, for the same reasons presented above for claim 15, the combination of Omi and Aaronson fails to establish *prima facie* obviousness for claim 25 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 26, 28, and 29 depend from claim 25 and inherently contain the features of claim 25. Consequently, claims 26, 28, and 29 are allowable over the combination of Omi and Aaronson at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Omi in view of Aaronson and further in view of U.S. Patent No. 6,374,103 to Kamel et al. ("Kamel"). The applicant disagrees.

Claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 are allowable over the combination of Omi, Aaronson, and Kamel at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Claims 3, 4, 13, 14, 23 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Omi, Aaronson, Kamel, and further in view of U.S. Patent No. 6,332,153 to Cohen ("Cohen"). The applicant disagrees.

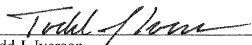
Claims 3, 4, 13, 14, 23, and 24 are allowable over the combination of Omi, Aaronson, Kamel, and Cohen at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

*Conclusion*

For the above reasons, reconsideration and allowance of the pending claims is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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